Georgia lab workers exposed to bioterror agent

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Hundreds of laboratory workers across the country — including 57 in Georgia — were potentially exposed to a weakened bioterrorism agent when samples were mishandled as part of a voluntary readiness test, state and federal health officials said.

At 16 of Georgia's 27 clinical labs participating in the test, workers failed to follow proper handling procedures and were potentially exposed to a vaccine strain of *Brucella abortus RB51*. Brucella bacteria, which are classified as a bioterrorism agent, primarily infect animals, but also can sicken people.

Although the vaccine strain used in the test can infect humans, no illnesses have been reported in Georgia or nationally.

Officials at the Atlanta-based Centers for Disease Control and Prevention, which is investigating, said that while such tests are important, the widespread handling problems illustrate the need for hospital and other private labs to establish and follow safety procedures when working with suspected bioterrorism agents.

"We want laboratorians to be aware and vigilant," said Dr. Lisa Rotz, director of CDC's Division of Bioterrorism and Response. "This is an opportunity for us to go back and look into why these practices weren't followed."

So far, the CDC has identified 916 workers in 254 clinical labs who were potentially exposed to Brucella during the nationwide Laboratory Preparedness Survey last fall.

The chairman of a congressional committee investigating bioterrorism lab safety said Tuesday these lapses raise "serious concerns."

"We are all fortunate this recent failing was only a test. Next time, we might not be so lucky," said U.S. Rep. John Dingell (D-Mich.), chairman of the House Committee on Energy and Commerce.

While lab workers were at risk, the general public was not, health officials said. Brucella infections cause flu-like symptoms, but severe cases can involve the lining of the heart. In some cases, infections can cause chronic problems, such as recurrent fevers, joint pain and fatigue.

Clinical laboratories, which perform tests on samples taken from patients in doctors' offices and hospitals, are the nation's front line for detecting bioterrorism events and outbreaks of other infectious diseases. The anthrax attacks of 2001 showed the

importance of these labs being prepared to quickly identify specimens containing unusual and deadly germs.

The preparedness survey — a joint project of the College of American Pathologists, CDC and the Association of Public Health Laboratories — is one of the few exercises that specifically tests labs' ability to respond to bioterrorism agents.

Twice a year, labs that voluntarily participate in the program are sent samples of various disease-causing organisms. Since 2006, the tests have included weakened bioterrorism organisms after the labs said they needed more realistic exercises of their preparedness, CDC officials said.

To participate in the tests, labs had to confirm they had proper safety equipment.

The test kits containing Brucella samples were sent to 1,316 clinical labs in the U.S. and Canada in October and November, CDC officials said. Even though it was a weakened strain used to inoculate cattle, the strain has the potential to cause human illness.

The test simulated the arrival of samples where a bioterrorism agent is suspected, but not identified. The labs were to conduct tests to identify or rule out various agents. The testing kits included written instructions stating the samples should be handled inside a special safety cabinet and within the protective barriers of a Biosafety Level 3 lab.

Despite these instructions, some lab workers handled the samples in high risk ways, even sniffing open culture plates as they sought clues to what was growing on them, records show. Certain odors are associated with some bacteria.

"This is a wake-up call for some of these laboratories," said Frances Pouch Downes, president of the Association of Public Health Laboratories. "We have work to do on safety-awareness," she said.

In November, New York's health department alerted CDC it had discovered problems in the handling of some test samples in the state. That prompted CDC last month to question all states .

The mishandling of Brucella samples at seven Georgia labs placed 15 workers at "high risk" of exposure, Dana Cole, a Georgia Division of Public Health epidemiologist, said. These workers were urged to take antibiotics last month as a precaution.

The other 42 Georgia workers had "low risk" exposures, she said.

In a response to an AJC request under the Georgia Open Records Act, the state declined to name the labs that mishandled samples, saying their identification "could potentially jeopardize security." They said no state- or county-run labs mishandled samples.

The test is not graded and is only designed to help labs assess their ability to identify potential bioterrorism agents, not their safety practices, said Dr. Paul Valenstein, vice chairman of the council on scientific affairs for the College of American Pathologists.

The good news is that labs across the country generally did a good job identifying that the sample was something that needed to be referred to a public health laboratory for further analysis, he said.

"We have no plans to change the survey whatsoever. We don't believe it poses any risk," Valenstein said. "It's an important educational exercise."

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